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NOTICE OF ALLOWANCE AND FEE(S) DUE

27849 7590 12/11/2009

LEE & MORSE, P.C.
3141 FAIRVIEW PARK DRIVE
SUITE 500
FALLS CHURCH, VA 22042

EXAMINER

SHAN, APRIL YING

ART UNIT

PAPER NUMBER

2435

DATE MAILED: 12/11/2009

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/613,023

07/07/2003

Kyung-Hun Jang

249/388

6627

TITLE OF INVENTION: METHOD OF GUARANTEEING USERS' ANONYMITY AND WIRELESS LOCAL AREA NETWORK (LAN) SYSTEM THEREFOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	03/11/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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**Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE
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INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

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27849 7590 12/11/2009

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3141 FAIRVIEW PARK DRIVE
SUITE 500
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I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/613,023 07/07/2003 Kyung-Hun Jang 249/388 6627

TITLE OF INVENTION: METHOD OF GUARANTEEING USERS' ANONYMITY AND WIRELESS LOCAL AREA NETWORK (LAN) SYSTEM THEREFOR

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
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nonprovisional NO \$1510 \$300 \$0 \$1810 03/11/2010

EXAMINER	ART UNIT	CLASS-SUBCLASS
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SHAN, APRIL YING 2435 380-270000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 _____
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 _____
- 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are submitted:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies _____

4b. Payment of Fee(s); (Please first reapply any previously paid issue fee shown above)

- ☐ A check is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment, to Deposit Account Number _____ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature _____

Date _____

Typed or printed name _____

Registration No. _____

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,023	07/07/2003	Kyung-Hun Jang	249/388	6627
27849	7590	12/11/2009	EXAMINER	
LEE & MORSE, P.C. 3141 FAIRVIEW PARK DRIVE SUITE 500 FALLS CHURCH, VA 22042			SHAN, APRIL YING	
			ART UNIT	PAPER NUMBER
			2435	
DATE MAILED: 12/11/2009				

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 529 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 529 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Notice of Allowability	Application No.	Applicant(s)	
	10/613,023	JANG ET AL.	
	Examiner	Art Unit	
	APRIL Y. SHAN	2435	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8/18/2009.
2. ☒ The allowed claim(s) is/are 1-2, 4-11 and 13-21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

1. The Applicant's amendment, filed 18 August 2009, has been received and entered into the record, respectfully and carefully considered.
2. As a result of the amendment, claims 3 and 12 are canceled. No claims are newly added. Therefore, claims 1-2, 4-11 and 13-21 are pending in the application.
3. The examiner acknowledges a verified English translation for the Korean Patent Application No. 2002-39155 was received on 8 September 2009.

Drawings

4. As a result of amendment to the drawings, the examiner withdraws the pending objections.

Claim Rejections - 35 USC § 112

5. As result of persuasive arguments, the examiner withdraws the pending rejections.

EXAMINER'S AMENDMENT

6. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee. Authorization for this examiner's amendment was given in a telephone interview with Ms. Susan Morse (Registration No. 35,292) on 4 December 2009. The amendment is to further clarify the invention.

Note that the deletion of the word “tangible” from claims 7-9 is to avoid any confusion as to whether or not a signal is being claimed. One skilled should appreciate that signals themselves are tangible and thus describing a medium as tangible adds nothing to the claims. Applicant had previously made amendments which established that “computer readable medium” as used in the current application is not meant to encompass signals. The replacement of “plurality of” with “more than one” is to clarify that there must be two or more addresses included in the temporary address set. The word “plurality” according to the dictionary could just mean “a number greater than another number”, thus using the word “plurality” could imply just one address in the set since one is a number greater than another number, i.e. zero.

As per MPEP 713.04, a separate interview summary form is not provided because the content of the interview has been summarized herein.

The application has been amended as follows:

IN THE CLAIMS:

- Please **replace claims 1, 5-10, 14-16, 19 and 21** as below:

(Claim 1) (Currently Amended) A method of guaranteeing users' anonymity in a wireless Local Area Network (LAN) system, the method comprising:

(a) creating a temporary address set by randomly transforming a unique Media Access Control (MAC) address of a wireless terminal, and simultaneously transmitting a ~~plurality of~~ more than one addresses included in the temporary address set to the wireless terminal; and

(b) performing data packet transmissions between the wireless terminal and a wireless access node using a temporary address selected from the temporary address set corresponding to the wireless terminal as a source address or a destination address, wherein in (a), the wireless access node encodes the temporary address set using a predetermined encryption key for the temporary address set, and transmits the encoded temporary address set to the wireless terminal.

(Claim 5) (Currently Amended) The method as claimed in claim 1, wherein (b) further comprises: (b1) a first addressing, which is performed in the wireless access node, and generates a destination address by randomly selecting, as the destination address, one of the ~~plurality of~~ more than one temporary addresses from the temporary address set of the wireless terminal after the wireless terminal has requested authentication.

(Claim 6) (Currently Amended) The method as claimed in claim 5, wherein (b) further comprises:

(b2) a second addressing, which is performed in the wireless terminal, and generates a source address by randomly selecting, as the source address, one of the ~~plurality of~~ more than one temporary addresses from the temporary address set of the wireless terminal.

(Claim 7) (Currently Amended) A ~~tangible~~ computer readable medium having embodied thereon a computer program for the method claimed in claim 1.

(Claim 8) (Currently Amended) A ~~tangible~~ computer readable medium having embodied thereon a computer program for the method claimed in claim 2.

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(Claim 9) (Currently Amended) A ~~tangible~~ computer readable medium having embodied thereon a computer program for the method claimed in claim 6.

(Claim 10) (Currently Amended) A wireless Local Area Network (LAN) system of guaranteeing users' anonymity comprising:

at least one wireless terminal; and

a wireless access node adapted to create a temporary address set by randomly transforming a unique Media Access Control (MAC) address of wireless terminal, and use a temporary address selected from the temporary address set as a destination address, wherein the wireless terminal is adapted to simultaneously receive ~~a plurality of~~ more than one temporary addresses included in the temporary address set corresponding to the unique MAC address thereof, and use a temporary address selected from the received temporary address set as a source address, wherein the wireless access node encodes the temporary address set using a predetermined encryption key for the address set, and respectively transmits the encoded temporary address set to the wireless terminal.

(Claim 14) (Currently Amended) The system as claimed in claim 10, wherein the wireless LAN system includes ~~a plurality of~~ more than one wireless terminals each having a respective unique MAC address and the wireless access node is adapted to create a respective temporary address set for each of the ~~plurality of~~ more than one wireless terminals, each of the temporary address sets being created by randomly transforming the respective unique MAC address of the corresponding wireless terminal, and the wireless access node comprises:

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a first memory adapted to store the temporary address sets, each of which consists of N (where N is an integer greater than or equal to two) random addresses;

a first MAC address filter adapted to filter one of the respective unique MAC addresses from a source address of a data packet received from one of the wireless terminals by referring to the temporary address sets stored in the first memory;

a destination address generation unit adapted to enable a respective one of the temporary address sets corresponding to the filtered unique MAC address of the wireless terminal having requested authentication from among the temporary address sets stored in the first memory, and generate a first random selection signal; and

a first random selection unit adapted to receive the first random selection signal from the destination address generation unit, randomly select one of the random addresses from the temporary address set enabled in the first memory according to the first random selection signal generated in the destination address generation unit, and output the selected random address to the destination address generation unit, wherein the destination address generation unit uses the selected random address as a respective destination address.

(Claim 15) (Currently Amended) The system as claimed in claim 14, wherein at least one of the plurality of more than one the wireless terminals comprises:

a second memory adapted to receive and store the respective one of the temporary address sets corresponding to the unique MAC address thereof from the wireless access node;

a second MAC address filter adapted to determine whether a destination address of a

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data packet received from the wireless access node is included in the respective one of the temporary address sets that is stored in the second memory, and generate a receipt enable signal according to a determination result;

a source address generation unit adapted to generate a second random selection signal according to a source address request signal; and

a second random selection unit adapted to randomly select one of the random addresses from the respective one of the temporary address sets stored in the second memory according to the second random selection signal generated in the source address generation unit, and output the selected random address to the source address generation unit, wherein the source address generation unit uses the selected random address as a respective source address.

(Claim 16) (Currently Amended) A wireless access node of guaranteeing users' anonymity comprising:

a memory adapted to receive and store ~~a plurality of~~ more than one temporary address sets, each of which consists of N (where N is an integer greater than or equal to two) random addresses and is created by randomly transforming a unique MAC address of a wireless terminal; and

a destination address generation unit adapted to enable a temporary address set corresponding to the unique MAC address of the wireless terminal requesting authentication from among the temporary address sets stored in the memory, generate a temporary address randomly selected from the enabled temporary address set, and use the temporary address as a destination address, wherein the temporary address set

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is encoded using a predetermined encryption key for the temporary address set, and a ~~plurality of~~ more than one temporary addresses included in the encoded temporary address set is simultaneously transmitted to the wireless terminal.

(Claim 19) (Currently Amended) A wireless terminal of guaranteeing users' anonymity comprising:

a memory adapted to receive and store a temporary address set including a ~~plurality of~~ more than one temporary addresses simultaneously transmitted to the wireless terminal, created by randomly transforming a unique MAC address of the wireless terminal and encoded using a predetermined encryption key for the temporary address set, from a wireless access node, and store the temporary address set; and

a source address generation unit adapted to generate a temporary address randomly selected from the temporary address set stored in the memory, and use the temporary address as a source address.

(Claim 21) (Currently Amended) The wireless terminal claimed in claim 20 further comprising:

a random selection unit adapted to randomly select one of the ~~plurality of~~ more than one temporary addresses from the temporary address set stored in the memory according to a random selection signal generated from a source address request signal, and output the selected temporary address to the source address generation unit.

Examiner's Comment

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7. Please note carrier waves were deleted from paragraph [0046] of the specification on 2/20/07. Thus, the examiner takes this a disavowal of that nonstatutory embodiment and thus, claims 7-9 are statutory.

Reasons for allowance

8. The following is an examiner's statement of reasons for allowance: the prior art of record does not explicitly teach or fairly suggest, either individually or in combination, simultaneously transmitting more than one addresses included in the temporary address set to the wireless terminal in combination with other claim limitations in the claims, where the more than one addresses were created by randomly transforming a unique MAC address of a wireless terminal. Therefore, Claims 1, 10, 16 and 19 are deemed allowable over the prior art of record.

The corresponding dependent claims further limit claims 1, 10, 16 and 19. Thus, also contain allowable subject matter by virtue of their dependency.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Allowable Subject Matter

9. Claims 1-2, 4-11 and 13-21 are allowed.

Contact Information

Art Unit: 2435

Any inquiry concerning this communication or earlier communications from the examiner should be directed to APRIL Y. SHAN whose telephone number is (571)270-1014. The examiner can normally be reached on Monday - Friday, 8:00 a.m. - 5:00 p.m., EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Y. Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/April Y Shan/
Examiner, Art Unit 2435

/Ponnoreay Pich/

Primary Examiner, Art Unit 2435